Society Reports.

THE NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting held at the New York Academy of Medicine, Tuesday Evening, November 6, 1894.

Dr. EDWARD D. FISHER, President, in the Chair.

PRESENTATION OF CASES.

Dr. JAMES J. PUTNAM, of Boston, briefly reported the histories of four cases of brain surgery recently coming under his observation, mainly in order to show the unexpected dangers attending operation. In all of these cases the chief symptoms were headache, nausea, vomiting and optic neuritis, and operation was advised for the purpose of relieving pressure. The first patient, a comparatively young man, did not recover from the effects of the ether, and died about five hours after the operation. No autopsy was permitted, but from an examination of the brain made through the opening in the skull evidences of a large hæmorrhage underneath the cortex were found. The dura had not been opened. The second case was that of a young girl who died during the ætherization, before an incision had been made. At the autopsy three tumors were found in the situation where the skull had been about to be opened. In the third case the patient's symptoms were somewhat relieved by the operation, which had been undertaken for relief of pressure. In the fourth case a tumor of the cortex was found, and a large cyst underneath the cortex. The latter was emptied, but it rapidly re-filled, and during the past few days there has been some oozing of brain substance from the wound and the patient is doing badly. These cases, the speaker said, go to show the dangers that attend opening the skull, which is usually regarded as a comparatively simple operation.

NOTE ON A CASE OF ACUTE POLIOMYELITIS IN A HEN.

BY DR. C. L. DANA.—The speaker stated that during the past summer, in the months of July and

August, there occurred in the neighborhood of Rutland, Vt., an epidemic of anterior poliomyelitis. Dr. Caverly, the Health Officer of the State, said that during this epidemic horses and fowls became affected, and on September 18 he sent Dr. Dana a large Plymouth Rock hen for bacteriological purposes. This fowl, on its arrival here, was paralyzed, and the owner of the flock, a physician, reported that several had died, the symptoms being similar to those noted in this one. The hen was taken to the Carnegie Laboratory and a careful clinical examination made, which revealed a paraplegia, not quite complete, and some paralysis of the wings; the head and neck muscles were not affected; there was no anæsthesia. Dr. Dunham, who conducted the bacteriological examination, inoculated several culture tubes from the spinal cord and meninges, and also took several sections from the cord and made smear stains, all with a negative result. The spinal canal of the animal was opened, and no evidence of meningitis was found, nor were there any signs of hæmorrhagic extravasation. On being placed in Muller's fluid and stained, a distinct area of softened tissue was seen in the central part of what might be termed the lumbar region of the cord. The destructive process was quite extensive, the congestion was intense, and there were several hæmorrhages. From the appearance of the cord it appeared that there had been an acute exudative inflammation, and that the process was so severe that necrosis came on before the inflammatory reaction; hence it is practically a case of acute infectious softening rather than myelitis. In conclusion, Dr. Dana said that while this case may not have any actual value, yet to a certain extent it corroborates the infectious theory of anterior poliomyelitis, and, so far as it goes, it supports the view that in this disease the changes are primarily vascular and not parenchymatous.

Dr. STARR stated that while on a visit to Vermont last summer he saw a number of the cases of anterior poliomyelitis referred to by Dr. Dana. Within a radius of perhaps twenty-five miles, about 160 cases of the disease occurred between the 25th of July and the 1st of September. Dr. Starr said he saw about a dozen of these cases. The epidemic was first regarded as one of cerebro-spinal meningitis, but from the lack of sensory symptoms and the peculiar distribution of the motor symptoms, the speaker said he regarded them as true cases of anterior poliomyelitis. Sensory symptoms were present in some of the cases, but he has often found in anterior poliomyelitis in children over the age of twelve years that hyperæsthesia and stiffness of the muscles are among the first symptoms complained of.

Dr. B. SACHS said that in France the tendency has been to regard anterior poliomyelitis as epidemic. Epidemics of the disease have been observed in Stockholm. In his own practice he has noticed that by far the larger number occur during the warm weather. It is probable that we must include this affection among the acute infectious diseases, which is epidemic, or rather endemic. He has observed cases where it was difficult at first to say whether the disease was cerebro-spinal meningitis or anterior poliomyelitis. In several cases of the latter disease, in the very early stage, pain along definite nerve tracts was a very characteristic symptom.

Dr. A. JACOBI stated that last August he received a letter from Dr. Caverly regarding this epidemic in Vermont, in which he described a number of the cases, particularly emphasizing the fact that there was a good deal of hyperæsthesia. Basing his conclusion on this data, Dr. Jacobi said, he expressed the opinion that the epidemic was one of cerebro-spinal meningitis, as the manifestations of that disease differ widely at times. Since then, however, he has received more detailed information regarding the cases from Dr. Starr, who examined a number of the patients, and he now has no doubt that the epidemic was one of anterior poliomyelitis.

Dr. A. D. ROCKWELL stated that two of these cases were examined by him. In one the hyperæsthesia was very distinct, and he was inclined to regard them as cases of cerebro-spinal meningitis.

Dr. STARR called attention to the fact that in the classical descriptions of anterior poliomyelitis, so little mention is made of the pain and stiffness and hyperæsthesia. The reason for this probably is that so few cases of the disease are diagnosticated as such until they have gone on for a week or two, and by that time the sensory symptoms have practically disappeared. If this newer pathology of the disease is correct, and it is due to a congestion of the cord, sensory symptoms are undoubtedly present.

Dr. PUTNAM stated that at an autopsy made in a case of anterior poliomyelitis of two months' standing in an adult, he found that the necrotic process was distinctly confined to the area immediately surrounding the vessels.

Dr. A. JACOBI said there are two distinct classes of cases in this disease. In one class, that referred to by Dr. Starr, there is fever and hyperæsthesia at the beginning, but these symptoms are readily obscured in cases where the myelitis comes on during the course of another disease, such as scarlet fever, pneumonia, etc. The acute symptoms are ascribed to the latter disease, upon recovery from which it is found that the child is paralyzed. In the other class of cases, and probably the large majority are of this character, the child is put to bed quite well, and when it is taken up in the morning it is found to be paralyzed; there is no fever and no hyperæsthesia; there is not even an outcry in the night.

Dr. PUTNAM said that in the case already referred to by him the hyperæsthesia was excessive; so much so, that he could hardly doubt that peripheral neuritis was also present. In all other respects the symptoms were typical of anterior poliomyelitis.

Dr. LANDON CARTER GRAY said he agreed with Dr. Jacobi that cases of anterior poliomyelitis like those last described are very commonly met with; yet there are a certain number where the patients have unquestionable sensory symptoms, which we are often apt to attribute to a neuritis. It is a fact that this disease usually occurs during the hotter months, and this subject was carefully studied some years ago by Drs. Weir Mitchell and Sinkler; they also showed that chorea is not dependent on temperature, but rather on barometric fluctuations.

Dr. G. M. HAMMOND inquired whether the diagnosis in the hen was based on the clinical symptoms or the pathological condition of the cord? In anterior poliomyelitis we are apt to associate a certain group of symptoms with certain pathological changes in the cord. In the microscopical sections exhibited by Dr. Dana the anterior horns appear to be symmetrical, and the changes do not exactly resemble those we find in the true disease.

Dr. DANA replied that in some of the sections, which he had been unable to bring with him, the lesion in the cord was very marked. In some there was a distinct loss of substance, with softening and hæmorrhage.

The PRESIDENT said that in the differential diagnosis between anterior poliomyelitis and cerebro-spinal meningitis, the extreme muscular atrophy which we find in the former would not be so apt to be present in the latter. The electrical reactions, too, might aid us. Sensory symptoms, he thought, are often present in anterior poliomyelitis, and are apt to be overlooked.

EXHIBITION OF MICROPHOTOGRAPHS OF NERVE CELLS (GOLGI'S STAINS.)

BY DR. M. ALLEN STARR.—These photographs were made by Dr. Edward Leaming, Instructor of Microphotography at the College of Physicians and Surgeons, from specimens prepared by Mr. Strong in the laboratory of the Biological Department at Columbia College. They showed various portions of nerve tissue, some stained by Golgi's method and others by a modification of that method employed by Mr. Strong. These microphotographs, Dr. Starr said, were exhibited this year at the British Association at Oxford, and received a good deal of favorable comment. One of them, showing the Purkinje ganglion-cell, took the prize in London for the best exhibit in microphotography.

SOME OF THE IMPORTANT ASPECTS OF THE THERAPEUTICS OF THE NERVOUS SYSTEM.

Dr. JAMES J. PUTNAM read a paper upon this subject, the greater part of which was devoted to remarks on the importance of utilizing the newer psychological literature for the study and treatment of neurasthenia and hysteria.

A number of French and English writers, especially Janet and Myers, have made original researches of much value with regard to these subjects, but in America the investigations have excited comparatively little attention.

It is certain that the mental condition of neurasthenics must be understood if we would devise modes of treatment at once successful and satisfactory to ourselves, for the disease is largely one of mental origin.

The central idea would seem to be that the fixed ideas and morbid associations which create and keep alive many of the symptoms, even of neurasthenia, are usually not to be reached by influences brought to bear on the patient's reasoning and intelligence, because they have their seat in regions of the mind which are ordinarily not illuminated by consciousness.

The curative influences on which we can rely are mainly of the following sort: the implantation of new ideas and interests derived from absorbing occupations of a useful character; the training of the patient's will, and, perhaps still more, the deep implantation of ideas of hopefulness and cheerfulness, the growth of which the patient may be taught systematically to promote; the inculcation of simple and robust systems of philosophy; and finally, hypnotism and kindred methods.

The experience of Van Eden, Schrenck-Notzing, and others have shown that neurasthenics can often, if necessary, be hypnotised; and though one may not wish to use this treatment himself, for one or another reason, yet all are bound to recognize what can be accomplished by it in skilled hands. The reader had seen abundant evidence of this in his own practice. The critical remarks of Forel and others show that the failures and dangers of hypnotism apply mainly to its improper or unskillful use. As adjuncts to direct mental treatment, it is often useful to follow out systematic and prolonged courses of treatment of other sorts, and among these static electricity is especially worthy of mention. It may or may not be of value in other ways, but it certainly is an aid to securing mental and muscular relaxation and making the patient more susceptible to auto-suggestions of useful kinds.

One objection to hypnotism and kindred methods of treatment is that the patient is liable to come into too close relations of dependence with the physician, but if this danger is recognized it may, in great measure, be avoided by a conscientious practitioner, and the relationship utilized for the patient's good.

Among American contributions to this general subject, the paper by Morton Prince on Association Neuroses, and that by Russell Sturgis on the treatment of fixed ideas by hypnotism, are especially worthy of notice.

Among other therapeutic measures referred to by the author, and which he has found valuable among dispensary patients, where the need of better methods for the treatment of nervous disease has long been felt, were gymnastics and massage, including the formation of classes for calisthenics. Treatment of this sort has been systematically carried out by professional masseurs (Dr. Lindström and Miss Colby), and by a number of pupils from the Posse Gymnasium, all working without pay. The reader spoke of the great value of such an affiliation of hospitals and schools for gymnastics. During the past year he had treated fifteen cases of chronic spinal sclerosis by suspension, a method of treatment which he regards as wholly empirical and probably psychical. In almost every instance these patients declared themselves improved, both as regards eyesight and general condition. Frequently curious changes of temperature occur during the treatment. In several cases of tabes remarkably low temperature had been noted, independently of treatment.

In concluding his paper, Dr. Putnam stated that during the past few months he has tested the Flechsig treatment of epilepsy by means of large doses of opium, and he referred to a paper on this subject by Dr. Joseph Collins (*New York Medical Record,* Sept. 22, 1894). The treatment was employed in five cases; in none of them were the attacks wholly checked, but in all of them an improvement was noted. The opium was never pushed beyond ten grains daily.

Dr. STARR said it seemed to him that the reason why Dr. Weir Mitchell's rest treatment is so successful is that it combines most of the different elements which had been mentioned by the various speakers. There is first the expectation of taking a cure which has been of benefit to others; this is combined with a trip to Philadelphia, a change of scene and an entire change in the daily routine of life. The speaker also referred to the value of hydro-therapeutics, which makes an intense mental impression on the patient.

Dr. MARY PUTNAM JACOBI said that one writer, probably humorously inclined, has made the assertion that the beneficial effects of hydro-therapeutics are more pronounced in France than in England, because no French person ever takes a bath.

Dr. GRAY said that in some patients there is such an admixture of the symptoms of neurasthenia, hypochondriasis and hysteria that it is difficult to distinguish one condition from the other. There are, on the other hand, cases which we may term pure neurasthenia, and it is in these cases, as he understood the paper, that the author would employ hypnotism under the broad term of suggestion. Hypnotism, in the way that it is generally used, is an agent that we can seldom employ in neurasthenia, not only because there is a prejudice against it, but also because it is difficult to impress such patients favorably by means of it. The same thing may be said about it in hypochondriasis, while on the other hand in hysteria its results are peculiarly favorable. As regards the value of electro-therapeutics, Dr. Gray said he is firmly convinced that the benefit following its employment in certain conditions is by no means confined to its influence on the mind of the patient. He has over and over again seen cases of neuritis in an advanced stage improve under the galvanic and faradic currents. He has seen marked benefit follow the use of this agent in many cases of anterior poliomyelitis and muscular atrophy.

Dr. WILLIAM H. THOMSON referred to the value of newness or change as a psychical therapeutic measure in nervous diseases, and narrated the histories of a number of cases in which remarkable improvement followed a change of scene and surroundings.

Dr. SACHS said it is claimed by some that hypnotism has not met with the reception in America which it deserves, and that one reason for this is that we are still subject to the old idea that the physician must prescribe; that we are altogether too fond of drugs. Personally, he regarded it is a therapeutic measure which is of value in comparatively few cases. After a thorough and impartial trial, his own experience with it has been anything but satisfactory.

Dr. MARY PUTNAM JACOBI stated that she has found static electricity almost a specific for the purpose of dissipating muscular pains, whether rheumatic, hysterical or otherwise, even if such pain has entirely resisted the galvanic or faradic currents.

Dr. ROCKWELL said he has employed statical electricity for many years, and expressed the opinion that its value has been very much over estimated; its slight quantity gives it very little value as compared with other forms of electricity.

Dr. JOSEPH COLLINS remarked that with a larger experience with Flechsig's plan he had not been led to change the convictions formulated when preparing his paper. He had never been enthusiastic about it, nor does he believe that it can in any way compare with the efficacy of bromides. In specially selected cases, however, particularly those associated with defects of development of the central nervous system in intractable cases and those in which physical aberrations are present, this plan of treatment will be found valuable. Opium is the most important adjunct to bromides in the treatment of epilepsy. It has been his more recent experience that the large doses of opium originally advised are not necessary. If the daily quantity averages eight grains for the six weeks of its administration, the results will be quite as good as if fifteen grains daily had been given.

Dr. PUTNAM then closed the discussion.

At the close of the discussion a vote of thanks was given to Dr. Putnam by the Society for his interesting and able paper.

PHILADELPHIA NEUROLOGICAL SOCIETY.

Stated Meeting, November 26, 1894.

Dr. WHARTON SINKLER, President, in the Chair.

EXHIBITION OF ANATOMICALLY CORRECT PLASTER CASTS OF BRAIN OF OURANG-OUTANG AND BRAIN OF CHIMPANZEE.

BY DR JUDSON DALAND.

These casts were made by Steger, of Leipsic, under the personal supervision of Professor His, and are presented for inspection, in the hope that they may elicit some discussion with reference to general morphology and the distribution of the convolutions. In the model of the chimpanzee's brain the cerebellum is fairly well covered, but the posterior portion of the brain is much less convoluted than is seen in the model of the brain of the ourang-outang.

EXHIBITION OF THE BRAINS OF THE CHIMPANZEE AND OURANG BELONGING TO PROF. H. C. CHAPMAN.

BY A. P. BRUBAKER, M.D.

At the suggestion of Dr. J. M. Taylor, I have brought to the society this evening the brains of the chimpanzee and ourang for the purpose of affording the members the opportunity of comparing them with the models presented by Dr. Daland. As to what extent they differ in their detailed structure can only be determined by careful examination. In the general arrangement of their leading fissures and convolutions they undoubtedly present many points of similarity. The one most marked difference between the model and the brain of the ourang is, the incomplete covering of the cerebellum by the cerebrum in the latter. This, however, probably depends on the age of the animal. The brain of the chimpanzee presents a less degree of conformity than its corresponding model.

DISCUSSION.

Dr. F. X. DERCUM.—The chief interest in these brains lies not only in their relative simplicity as compared with the human brain, but also in the course pursued by certain fissures, especially the fissures of the occipital lobe. The brains shown to-night are evidently the brains of young animals. The brain of the adult chimpanzee is much larger.

The differences between the human and the anthropoid brains centre chiefly about the fissures and convolutions of the occipital lobe. These have already been described, and their significance much discussed.

Time would not permit our entering into an elaborate discussion of this interesting subject, and I will only speak of the peculiarity of the superior external bridging convolution—the *pli de passage superieure externe.* In both the specimens and casts of the chimpanzee brains presented here to-night this convolution is represented as absent or submerged, *i. e.*, the external perpendicular fissure is freely confluent with the internal perpendicular. This would seem to justify the inference that this peculiarity was a constant feature, and could be relied upon as a distinguishing characteristic between the chimpanzee and human brain. However, at the meeting of the American Neurological Association held in Philadelphia, Dr. E. C. Spitzka exhibited the brain of a chimpanzee (Mr. Crowley, of Central Park fame), in which upon one side the superior external bridging convolution was fully developed up to the surface, *i. e.*, it presented the same morphological peculiarities as seen in man. On the other hemisphere it was absent (*i. e.*, submerged), just as in the specimens exhibited here this evening. To make this point still more interesting, we must remember that in the human brain this convolution is every now and then (*i. e.*, exceptionally) found submerged.

Dr. CHARLES K. MILLS.—I am interested in these brains and in the brains of low-type human beings, which have many ape-like peculiarities. Fissural and gyral peculiarities have significance with reference to criminal lunatics and certain types of paranoiacs, and when we have made a sufficient number of observations on high-type and on low-type brains we will be able to say something more definite than this. These are teratological defects. I remember in the case of Beach, who killed his wife, the conditions presented in the occipital region were remarkable. The superior internal *pli de passage* convolution was unusually and peculiarly developed, and my own experience with the brains of criminals and of paranoiacs is that you not infrequently have submergence of the gyres, which are usually on the surface around the parieto-occipital fissure. The brain of Taylor, the man who killed his keeper at the Eastern Penitentiary, is the most ape-like human brain that I have ever seen, or of which I have ever seen a description. The fissures are unusually simple, and the occipito-parietal conditions much like those found in the chimpanzee. It is true that sometimes in high-type brains there is a simplicity of arrangement, as was the case in the brain from a very intelligent and highly cultivated person which was shown at a meeting of the American Neurological Society by Professor Wilder, but that fact in itself is not necessarily opposed to the view taken regarding the confluence of fissures and the submergence of convolutions. Many points must be studied in the clearing up of this subject.

The separation of the frontal lobe into four convolutions, which is looked upon by some recent writers as a high type peculiarity, was regarded by Benedict as peculiar to the criminal brain.

Dr. JAMES HENDRIE LLOYD.—I should like to ask Dr. Mills whether he thinks that chimpanzees and orang-outangs are necessarily paranoiacs? The fallacy involved is the assumption that a lower type necessarily means a vicious or abnormal type. It is taken for granted too readily that a slight reversion in type in the morphology of the brain convolutions implies a corresponding reversion in intellect and morals. The advocates of this doctrine must establish it on a much broader basis than they have yet done before it can be accepted as scientifically or legally valid.

Dr. CHARLES K. MILLS.—Whether the chimpanzee can be classed as a paranoiac I cannot say, but the chimpanzee is troubled very little with morals, and his tendency to theft and his exhibition of himself on all occasions, are such as to make Dr. Lloyd's argument of very little value. It is not a question of reversion to a low type, but a question of non-evolution.

Dr. F. X. DERCUM.—I agree in substance with what Dr. Mills has said, but I do not believe that single morphological peculiarities are of any great significance. It is the sum total of the conditions found in any one brain that should guide us. As a rule, the brains of murderers show an unusual number of these defects. What do these defects mean? They mean defective cortical development. Take the chimpanzee brain and lift up the operculum and you will find those convolutions which in the human brain are developed up to the surface. In the chimpanzee they are beneath the surface. On the other hand, there are some convolutions which are developed up to the surface in the ape brain, but which are beneath the surface in the human brain. This is the case with some of the convolutions on the inner surface of the occipital lobe; such, for instance, as the inferior internal bridging convolution. This condition, when it exists in the human subject (which is quite rare), is probably to be explained by such a relative retardation in the growth of surrounding convolutions as to leave structures, normally submerged, exposed on the general surface. Certainly, when such peculiarities occur in any number in a human brain, it is philosophical to regard it as a brain of low type.

Dr. JUDSON DALAND.—I am glad to hear this interesting discussion with reference to the morphology and arrangement of the convolutions. It seems to me that the study of morphology in relation to the brain, and also in relation to the internal viscera from this point of view, has been much neglected. Such study would be of distinct advantage, not only as regards the brain but also as regards the exact position and relation of the heart, lungs and abdominal viscera. In the method of making visceral models adopted by Steger, the body is frozen so that the organs are preserved, not only in their normal position and shape but also in their relation to other organs. This gives an accurate knowledge that cannot be obtained from the ordinary dissections. For example, the topographical anatomy of the lungs and its relation with the heart are entirely changed after death from the entrance of air, causing marked changes in the shape and position of the thoracic and abdominal organs.

As water, when frozen, occupies more space than when it is a liquid, it is probable that this causes a slight increase in the size of all plaster of Paris models prepared in this manner.

Dr. CHARLES W. BURR presented

SPECIMENS FROM CASES OF PERNICIOUS ANÆMIA, SHOWING LESIONS OF THE SPINAL CORD.

DISCUSSION.

Dr. JAMES HENDRIE LLOYD.—In my observations on pernicious anæmia, I have found degeneration confined almost entirely to the posterior columns of the cord. I cannot say that my observations have been extensive, or that they are completed. I have not yet studied the sections thoroughly from the case that I have under observation, but the posterior sclerosis is so conspicuous that it can be easily seen. In some sections there appears to be a slight degeneration of the lateral tracts. I hope to have the opportunity to show these sections to the society.

Dr. CHARLES K. MILLS and Dr. J. W. MCCONNELL read a paper entitled

LESION OF THE NAMING CENTRE, WITH REPORT OF A CASE INDICATING ITS LOCATION IN THE TEMPORAL LOBE. (See page 1).

DISCUSSION.

Dr. CHARLES K. MILLS.—It is not unlikely that this case may be criticised, for the separation of an area for this particular purpose, perhaps, has more opponents than advocates. This case offers strong evidence of the existence of such an area. This man was not word deaf.

The first temporal convolution is intact. The second temporal convolution was not intact. It had evidently been involved in the progress of the disease. The upper portion of the second temporal convolution and the fissure between the first and second temporal were not affected. The occipital region and the cuneus were not affected, nor was the anterior portion of the occipital lobe, except at the occipito-temporal junction. The hemianopsia, I think, was due to involvement of the optic radiations; it was not present when the verbal amnesia first appeared. We are warranted in saying, from an examination of the specimen, that this tumor began in the third temporal convolution and then extended in different directions.

Those who do not make a special study of localization sometimes get erroneous ideas of what we really believe when we speak of "idea," "concept," or "naming" centres, or centres of any kind for that matter. What we mean is, that here is a region to which converge the percepts from the different receptive centres of hearing, taste, sight, smell, touch, etc. Curiously this region is just the one anatomically so located as to receive with great facility impressions by way of association tracts which would come from the known receptive regions. A name arises in consciousness as a result of processes in this particular region. Ideation in a general sense is dependent upon the actions and inter-relations of the entire cortex. This is the region for concrete names. A patient like the one reported will use abstract nouns, like love and hate, and put them in sentences.

Dr. F. X. DERCUM.—I am one of those who have been loath to regard any special area as a naming centre. It seems reasonable, however, that the various impressions received from the eye and ear should at some point be combined; but if we pursue this thought to its legitimate consequences we must include the impressions from all of the senses. I admit, however, that the case reported is, clinically, very strong in favor of the view presented. It is not impossible nor improbable that there should be a centre in which impressions, especially from sight and hearing, are combined and symbolized. I infer that Dr. Mills regards it as a naming centre and not an ideation centre.

The PRESIDENT.—This case is of interest to me on account of a somewhat similar case which came under my observation several years ago. The patient, a lady sixty-five years of age, had violent occipital pain, which was so severe as to require the free use of narcotics. With this there was complete left lateral hemianopsia. After two or three weeks, the pain subsided and she apparently returned to her normal health, the hemianopsia still remaining. I then, by accident, discovered that she had, to a great extent, lost the power of naming objects. This was three or four years ago. She has since regained to a certain extent the ability to name objects, and appears to be in good health, with the exception of the hemianopsia.

Dr. F. SAVARY PEARCE reported a case of

LOCOMOTOR ATAXIA, WITH SUDDEN ONSET AND UNUSUAL INITIAL SYMPTOMS; POSTERIOR SCLEROSIS OF SIMILAR SYMPTOMATOLOGY IN PATIENT'S WIFE. (See page 8).

DISCUSSION.

Dr. CHARLES K. MILLS.—I cannot help thinking that the diagnosis of locomotor ataxia has not been made out. The point in favor of it is the absent knee jerk. It seems to me that the sudden occurrence of one of those peculiar lesions which sometimes develop in the region of the nuclei of the cranial nerves might explain it. Certain syphilitic lesions occur in the course of the root fibres, or at the nuclei of origin of these nerves, unassociated with true posterior sclerosis. This would not account for the lost knee-jerk. Knee-jerk is absent in disease of the cerebellum, and may be in some cases of quadrigeminal disease. This man has not the ordinary ataxic gait. He has an ataxic gait, but that it is the gait of posterior sclerosis is doubtful. Bruce and others have traced from the flocculus of the cerebellum fibres to the nuclei of the sixth nerve. A lesion of the cerebellum might account for it, or it might be accounted for in the same way by lesion of the tracts between the nuclei of these nerves and the cerebellum.

Dr. FRANCIS X. DERCUM.—Multiple specific lesions would explain the symptoms in this case. There may have been slight and previously existing ataxia, due to syphilitic infiltration of the posterior columns, and which remained unnoticed until the affection of vision directed attention to it. Many ataxics do not notice the difficulty in walking until interference with vision occurs. It would be difficult to say how syphilis of the cord could be excluded in such a case as this. The occurrence in man and wife of a disease bearing such a close relation to syphilis in etiology is very suggestive.

Dr. M. V. BALL.—Might not the loss of knee-jerk have been present for some time? It sometimes happens that there is absence of knee jerk without any other symptom. This might be a coincidence in this case, for the man does not know anything with regard to his knee-jerk prior to the occurrence of the involvement of vision.

The PRESIDENT.—The knee-jerk is sometimes lost in cerebellar disease and in lesions of the corpora quadrigemina. A patient was under my care not long ago in whom quite suddenly inco-ordination of the right arm and leg occurred. There was no true loss of power, but there was great inco-ordination with a tendency to spasm. There was complete absence of the knee-jerk and considerable occipital pain and a tendency to stagger in walking, giving rise to the opinion that there probably was a cerebellar lesion. No syphilitic history was made out, but the man improved markedly under antisyphilitic treatment.

Dr. F. X. DERCUM.—There are none of the other symptoms of cerebellar disease, no nystagmus, no vertigo, no vomiting, and a lesion of the cerebellum in such a position as to involve also the quadrigeminal bodies would be likely to present some of them; further, the absence of symptoms referable to the optic tracts also militates against this view.

Dr. PIERCE.—While there may be cerebellar disease in this case, it seems that the cord or its members *must* be involved from the fact that the numbness began in the perineum first, then in the left foot and leg up to the knee, and persisted there for a short time; then appeared in the right foot and left hand, and again, a few days later, in the right hand. This parasthesic condition has persisted from the first. These facts in connection with the sensation of walking on a carpet when stepping on boards, etc., would be in favor of the diagnosis of locomotor ataxia.

EXHIBITION OF BRAIN TUMORS.

BY F. X. DERCUM, M.D.

CASE I.—C. L., male, aged 18, student. Family and personal history negative up to one year ago. At that time he began to have epileptic seizures. They appeared to resemble ordinary attacks of petit mal, and recurred at intervals of three or four weeks until some three months before his death. The frequency then increased to two or three times a week. At this time, September 14, 1894, he was admitted to the Jefferson Hospital. Here the number of seizures were observed. While seated in a chair he would become suddenly unconscious, and would at the same time have slight general clonic movements. These were slightly accentuated upon the left side. The entire attack would last but a few minutes. Afterwards he would be slightly dazed. There was no local residual weakness, and the eye-grounds failed to reveal any change. He complained occasionally of headache, but this was never a marked feature of his case. In the intervals between the attacks he appeared mentally much depressed. He would sit quietly in his chair for hours without speaking, though he was not in the least degree demented. Two days before his death, which occurred on October 26, in a seizure, he wrote a long letter to one of his relatives. This letter did not differ from any that he had previously written. He had had an average education, and there was nothing in his letters to convey the idea that there was any marked loss of mental power. At the autopsy a large glioma, occupying the centrum ovale in the right frontal lobe, was found. It did not involve the cortex. It extended as far back as the anterior limb of the internal capsule. The growth presented traces of recent hæmorrhage.

The practical interest of this case centres in the absence of optic neuritis and of the stupor and somnolence so often found in tumors of the frontal lobe. Probably the absence of these symptoms is to be explained by the fact that neither the cortex nor the membranes were involved, but that the tumor was situated well within the centrum ovale. The fact that headache was so little complained of finds a similar explanation.

CASE II.—E. A. B., male, aged 60, clerk. Family and personal history negative. No alcoholism or syphilis. Was well until September 15, 1893, when, on attempting to sit down, he missed his chair and fell heavily to the floor. On attempting to rise, he noticed that the left arm and the left leg were slightly weak. He then went to bed, and slept well throughout the night. On the following day he resumed his work. He noticed, however, a little weakness and some awkwardness in his left leg. Four or five days later acute pain set in in the occipital region, extending thence over the entire head. It was very severe, and persisted uninterruptedly for two weeks. It then disappeared, and did not recur for two months. Examined January 12, 1894, it was found that he was slightly hemiplegic upon the left side, and further, that the movements on this side were decidedly awkward. No hemianæsthesia, no abnormality of speech, no involvement of the sphincters. Knee-jerk on the left side, pupils equal, and responsive to light; dynamometer, right hand 125, left hand 115. Examination of the urine revealed a specific gravity of 1042, and that it contained about ten per cent. of sugar.

Examined February 1, 1894, it was noted that an optic neuritis was present upon both sides, slightly more marked upon the right. The veins were greatly distended and tortuous. In addition, there was left lateral hemianopsia.

Examined on February 22, Drs. de Schweinitz and Thompson again confirmed the existence of left lateral hemianopsia and double optic neuritis. Many hæmorrhages were noted on the swollen discs. Pupillary reflexes to light and accommodation were normal. The pupils were equal in size. It was also noted that there was some diminution of the light reflex when a beam of light fell on the blind side of the retina, but there was no true hemiopic pupillary inaction.

He was now admitted to the hospital under the care of Dr. Weir Mitchell. Under dietetic treatment and codeine the amount of sugar became somewhat less. Headache was again more severe, however, and most marked during the evening. The patient seemed forgetful, and walked about as though somewhat dazed. From this time on, except as regards the diminution of the amount of sugar in the urine, there was but little change in his condition. Hemiparesis appeared to become gradually more and more marked, and in June it was noted that this side was also somewhat hemianæsthetic. On the 12th of June, while sitting up, he became suddenly faint, but did not lose consciousness.

After this attack it was noticed that the weakness of the left hand and arm had decidedly increased. The hemi-anæsthesia doubtfully present before was now more evident. He lost ground progressively from this time forward, becoming more and more demented and feeble until the 27th of July, when he died.

At the autopsy held the next day the right occipital lobe was found to be occupied by a rather firm mass, which in its more superficial portions resembled a sarcoma, while the more central portions were soft and jelly-like. Throughout its substance, and especially about the soft edges of the mass, which was in no sense circumscribed, but infiltrated the brain tissue, there were many small hæmorrhages, old and recent. Upon the lateral surface of the occipital lobe the tumor had perforated the dura at one point, and had slightly eroded the calvarium.

In contrast with the preceding case, this man presented marked optic neuritis and practically constant headache. The localizing symptoms, too, were such as to have led to a correct diagnosis of the seat of the growth during life. Anteriorly the tumor had invaded the centrum ovale above the internal capsule, and to some extent the capsule itself.

Adjourned.